



Discipline

DEFINITION

<i>Name</i>	Application Interoperability
<i>Description</i>	<p>The Application Interoperability Discipline defines the tools, technologies and procedures associated with facilitating the interchange of information in a distributed, multi-vendor, and disparate systems environment. Application interoperability handles application to application communications via external services (e.g., middleware services).</p> <p>Application Interoperability integrates the processing logic or functions from existing systems into new applications. It allows the state to meet the immediate need for allowing online transaction processing (OLTP) legacy systems that were not designed to work together to exchange data and information with other application systems, while keeping the business logic where it was originally developed. Application Interoperability solutions prevents the duplication of business logic or functions into new systems and eliminates the re-keying of data, permitting systems to interact more effectively.</p>
<i>Rationale</i>	There is a growing business need to communicate across agencies to provide state services in a more efficient and simplified manner to the citizenry. An application interoperability strategy enables the state to retain its investments in existing legacy systems, and provides the ability to create a consistent set of platform-independent interfaces that handle common services necessary for multiple systems to work together.
<i>Benefits</i>	<ul style="list-style-type: none"> • Adaptability - the underlying components of applications (operating systems, databases, and hardware platforms) are independent of the information exchange technology. • Flexibility - the business logic functions and features of applications can be modified independent of the data exchange process. • Reduced development and information delivery time through the use of a common information exchange service. • Reduced costs. The opportunities for selecting products from different vendors are enhanced by the integration capabilities offered by middleware; therefore, greater competition should improve price offerings.

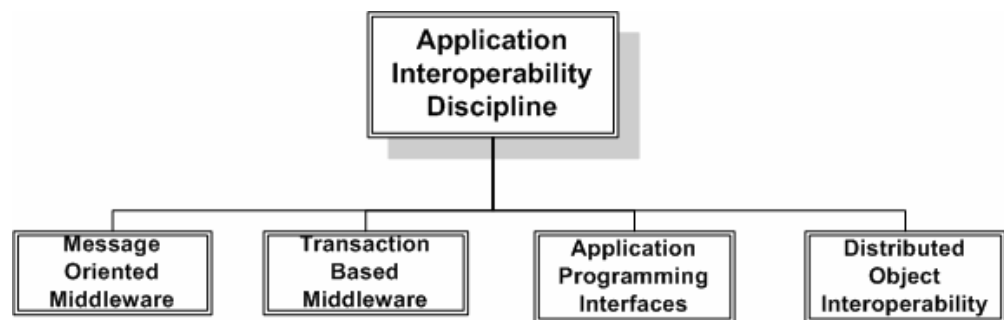
BOUNDARY

<i>Boundary Limit Statement</i>	<p>The Application Interoperability Discipline defines those systems integration technologies, standards and products that simplify communications within and between heterogeneous, distributed application systems. The focus of the technologies covered in this discipline center on those system integration areas that require application communications including:</p> <ul style="list-style-type: none"> ○ Intra-Application – Handles communication within the tiers of an application system. ○ Inter-Application – Handles communications between application systems and external services, such as common shared services and other application systems. Includes agency-to-agency or agency-to-external entity integration.
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Application Interoperability does not include functional or workflow integration features of application systems. Application Integration is not business analysis or design..

Application Interoperability addresses Message Oriented Middleware, Transaction Based Middleware, Application Programming Interfaces (APIs) and Distributed Object Interoperability. This discipline includes off-the-shelf vendor provided APIs but does not address custom API development. This discipline does not address Database Middleware (e.g., DB2 Connect, SQL Connect) or Network Protocols.

The diagram below illustrates the Technology Areas associated with Application Interoperability Discipline:



ASSOCIATED ARCHITECTURE LEVEL

Specify the Domain Name

Interoperability Domain

CRITICAL REFERENCES

Related Domains/Disciplines

<input type="checkbox"/> Interface – Branding	<input checked="" type="checkbox"/> Interoperability – Data Exchange	<input type="checkbox"/> Systems Mgt – Business Continuity
<input type="checkbox"/> Interface – Access	<input type="checkbox"/> Interoperability – Application Interop,	<input type="checkbox"/> Security – Managerial Controls
<input type="checkbox"/> Interface – Accessibility	<input checked="" type="checkbox"/> Application – Application Engineering	<input checked="" type="checkbox"/> Security – Technical Controls
<input checked="" type="checkbox"/> Information – Knowledge Mgt	<input checked="" type="checkbox"/> Application – Electronic Collaboration	<input type="checkbox"/> Security – Operational Controls
<input checked="" type="checkbox"/> Information – Data Mgt	<input type="checkbox"/> Systems Mgt – Asset Mgt	<input type="checkbox"/> Privacy – Profiling
<input checked="" type="checkbox"/> Information – GIT	<input type="checkbox"/> Systems Mgt – Change Mgt	<input type="checkbox"/> Privacy – Personification
<input type="checkbox"/> Infrastructure – Network	<input type="checkbox"/> Systems Mgt – Console/Event Mgt	<input checked="" type="checkbox"/> Privacy – Privacy
<input checked="" type="checkbox"/> Infrastructure – Platform	<input type="checkbox"/> Systems Mgt – Help Desk/Problem Mgt	

Standards Organizations/Government Bodies

<i>List Standards Organizations</i>	International Standards Organization (ISO) [Enhanced Interoperability]; IEEE Standards for Information Technology – Application Interoperability
<i>List Government Bodies</i>	Federal Enterprise Architecture (FEA) – Service Interface and Integration Technology Area

Stakeholders/Roles

<i>List Stakeholders</i>	Software Engineering, Application Development
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List Roles	Software Developers, Software Architects, DBAs, Technical Support		
Discipline-specific Technology Trends			
List Discipline-specific Technology Trends			
Technology Trend Source			
ASSOCIATED COMPLIANCE COMPONENTS			
List Discipline-level Compliance Components	Application Interoperability Best Practices		
METHODOLOGIES			
List methodologies followed	Reference Models: <ul style="list-style-type: none"> TAFIM – Technical Architecture Framework for Information Management [Dept. of Defense, Defense Information Systems Agency] Federal Enterprise Architecture (FEA) – Technical Reference Model, Service Interface and Integration: Interoperability Area 		
DISCIPLINE DOCUMENTATION REQUIREMENTS			
Provide documentation requirements for this Discipline	To be reviewed semi-annually for vitality.		
ASSOCIATED TECHNOLOGY AREAS			
List the Technology Areas associated with this Discipline	Message Oriented Middleware ; Transaction-based Middleware; Application Programming Interfaces (APIs); Distributed Object Interoperability		
CURRENT STATUS			
Provide the Current Status	<input type="checkbox"/> In Development <input type="checkbox"/> Under Review <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Rejected		
AUDIT TRAIL			
Creation Date	11/05/2003	Date Approved/Rejected	4/13/04
Reason for Rejection			
Last Date Reviewed		Last Date Updated	
Reason for Update			